



Calculating cost of production for your wool enterprise

For producers wanting to improve the performance of their wool enterprise, a good understanding of the current efficiency of the business is essential. **Cost of production is a key factor affecting the profitability of wool producing businesses. Calculating your cost of production is an important step in assessing flock profitability and a first step to making change.**

Cost of production

Cost of production (COP), measured in dollars per kilogram clean wool, is an indication of the outlay required to produce each kg of wool. It is therefore a measure of the **efficiency** with which you produce wool. If you identify that there is room for improvement in your cost of production then you can look for ways to improve which may come from either increasing productivity, decreasing costs, or both.

The AWI cost of production calculator has been developed to standardise this very common performance indicator, so you can easily compare the performance of your enterprise with others in the wool industry. A quick comparison of your COP will indicate whether you have great scope for improvement, or are already performing reasonably well.

COP, is simple to calculate. It is not complicated by how you have financed the business, how much of it you own or how you acquire your land, and it only deals with one enterprise at a time. COP does not automatically reveal what aspects of production you are in a position to improve, but it will provide a very useful start. You can use it to compare the efficiency of your business year on year, and then compare it against other wool producers with similar resources to your own.

In developing a standard approach to calculating COP, care has been taken to ensure that while the easiest method has been applied at every step, the usefulness of the measure has not been compromised. Designed as a 'do-it-yourself' tool, we hope that every wool producer will use the AWI cost of production calculator to figure out their COP and compare their performance annually.

Finally, knowing your COP is just the first step. Once you have a rough idea of how you are performing, we strongly urge you to measure the performance of your business in more detail and for all enterprises. There are a number of benchmarking groups already established that can provide this service.

How to use the AWI cost of production calculator

The calculator is intended to be used for only one enterprise at a time, for example a specialist wool flock. If you have a Merino wool flock and you join a percentage of the ewes to a terminal sire and the rest to Merino sires, then you would break that flock into two enterprises:

- 1) A wool flock that includes those ewes joined to Merino sires and all Merino wethers, and
- 2) A dual purpose lamb flock that includes the ewes joined to a terminal sire.

The income and costs should be apportioned accordingly (pro-rata the data by number of sheep in each flock if necessary) throughout the calculator. Use the most appropriate 12 month period for your situation.

The COP calculator is split into the following seven sections:

1. Wool trading account
2. Sheep trading account
3. Total labour costs for all enterprises
4. Wool enterprise costs
5. Overhead costs for whole farm business
6. Calculation for allocating overheads to wool enterprise
7. Final COP calculation

Each section has a number of questions to be answered from your own records, with a number next to the question referring to a comment in the explanatory notes box where required. There is a box at the end of each section with a letter beside it that refers to the figures used in the final COP calculation.

Once you have calculated your COP, the next section of this calculator gives you an idea of how your performance ranks against other wool enterprises. Please heed the WARNING section about the accuracy of COP for different enterprise mixes.



Key benefits

- Learn to use the AWI cost of production calculator to measure the performance of your wool enterprise year on year.
- Compare the efficiency of your enterprise annually with other wool producers and find out if there is scope for improvement, or if your enterprise is already performing well.
- Use the cost of production information to help with wool marketing decisions.

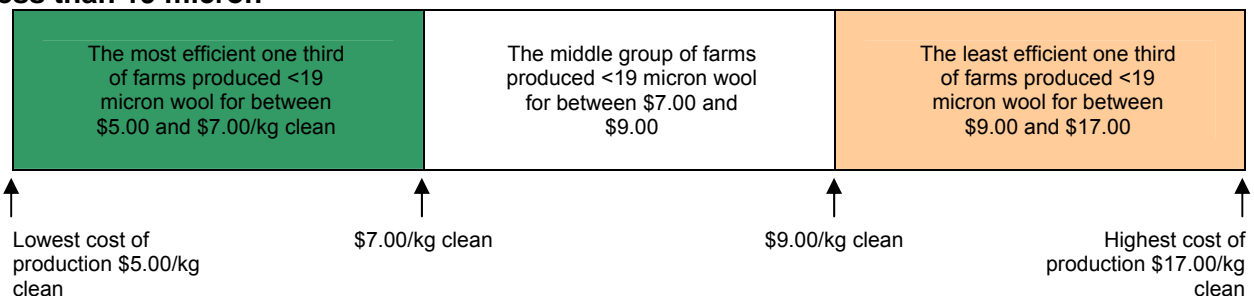
How does your Wool COP compare with others?

Fine wool (< than 19 µm) tends to have a higher cost of production than medium and strong wool. The reasons are a combination of intensity of production systems (fine wool production in higher rainfall areas) and lower fleece weights of sheep. Choose which category you fit into by comparing your average adult micron for your clip.

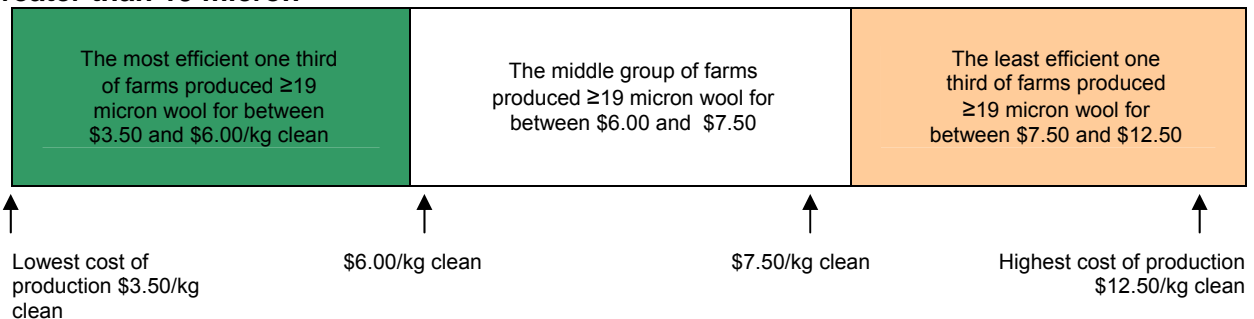
By industry standards, if you have a cost of production of less than \$6 to 7/kg clean, you are performing better than the average wool producer. As shown in the diagram below, the most efficient wool producers have an average cost of production of \$5/kg clean for fine wool and \$3.50/kg clean for medium and strong wool – good goals for any producer interested in wealth creation.

The most efficient one third of medium to strong wool enterprises produce wool for between \$3.50 and \$6/kg clean. The middle group produce wool for between \$6 and \$7.50/kg clean, and the least efficient one third of farms produced wool for between \$7.50 and \$12.50/kg clean.

Less than 19 micron



Greater than 19 micron





WARNING

CALCULATE COP FOR A NUMBER OF YEARS TO GET AN IDEA OF YOUR AVERAGE

COP can vary a lot between years due to a range of circumstances. These include but are not limited to:

- Unusual rainfall (usually to do with lack there-of)
- Changes to flock management or structure, such as lambing date or shearing time.
- Greater than normal expenses, such as capital fertilizer applications or pasture establishment

As a general rule, the more variable the rainfall for your location, the more years you should calculate to determine your average COP.

THIS COP CALCULATOR IS MOST ACCURATE FOR A BUSINESS THAT RUNS WOOL ONLY

Where multiple sheep enterprises are run estimating how much of some costs should be allocated to each enterprise is more difficult and can lead to small inaccuracies. Note however, provided you have used a reasonably sensible measure for allocation, these small inaccuracies are unlikely to change the message. **The key to using this tool is that you understand in which third of producers you belong, not whether your COP is \$9.45 or \$9.15.** In either case it is way too high and there is significant room for improvement!! A cost of production greater than \$8/kg clean for fine wool and \$7/kg clean for medium and strong wool would suggest significant room for improvement.

For businesses that run multiple enterprises ie sheep and cropping, the calculator is reasonably accurate because costs can be split reliably by using the percentage of gross income each contributes. However, there may be instances that where the farm has multiple enterprises that due to variations in income from year to year in all enterprises the wool enterprise will get an abnormal allocation of expenses. This may produce an answer that is either abnormally low or high.

Calculating your COP over a number of years will help to give a more accurate answers and it is also worthwhile discussing your answer with an experienced benchmarking service provider to make sure the answer is indeed sensible and to help with interpretation.

Optional extras

Using the figures you have drawn on to measure COP, there are a couple of extra indicators you can calculate. Should you choose to fill these extras out; the results will be useful additional discussion material you might engage to help you.

Kilograms of wool produced per hectare (Kg Clean/Ha)

You can calculate kg clean/ha by simply dividing the number of kilograms of wool produced by the number of winter grazing hectares used for wool production. If wool is your only enterprise, this is easy to determine accurately. However, where you have a number of different enterprises, deciding on the number of hectares you allocate to the wool enterprise as opposed to the others may be difficult, so don't rely too much on the result.

Average sale price

You should be able to get an idea of your average sale price per kilogram clean from your historical sales records or divide the WOOL GROSS INCOME (Box E) by the total kilograms of wool sold (Box I). Alternatively you can use the AWI **Woolcheque** program as an indicator of your current clip value, www.woolcheque.com.au.

Margin

Subtracting your COP from your average sale price (cents/kg clean) will give you an idea of the margin you are making from your wool enterprise. If this figure is less than or close to 0, your business may be at risk.

The margin you have made and the margin you are likely to make is not only helpful in making production decisions but also in making marketing decisions. Your COP information and information about the value of your wool clip can help make good decisions on when to sell your wool and for what price.



Where to from here?

Congratulations! You have taken the first step. Benchmarking your COP has given you an idea of the scope you have for improving the profitability of your wool enterprise.

The next step is to very clearly decide the lifestyle and financial goals your business has to support, and then determine the enterprise strategy, flock structure and markets that will best achieve these goals.

Access to capital, attitude to risk, land class and rainfall are some of the factors that make your situation different to others and will govern the enterprise choices available to you.

However, all options you might take will influence either of two things – your feed supply or your feed demand.

Feed demand is influenced by the flock structure and lambing dates you choose. Both of these factors influence the feed demand in terms of quality and quantity required at different times of the year.

On the other side of the equation, options for providing the feed required include: fertilizer applications; the pasture species grown on different land classes; the grazing rotation, which includes fencing, grazing and rest times; the use of irrigation, supplementary feeding, and fodder conservation.

Based on your current enterprise structure, you need to determine how well your feed supply matches your feed demand. There are a number of programs and tools provided by AWI such as Evergraze, Lifetime Wool, Making More from Sheep, and Grassgro from which you can get additional information to help improve the efficiency of your wool production.

If the match between your feed supply and demand is poor, look for options to change either or both. Other producers, often from regions quite different to yours, can be a great source of new options for you to consider. Keep an open mind, listen to others and read widely.

When you have chosen a few possible options, you should do an economic analysis of each of those options to ensure they will meet the profit goals you have set.

Once you have decided on the lambing date, flock structure, target markets and feed supply options you want to implement, you need to develop a transition plan to get from the current enterprise strategy to the new one. This plan needs to account for access to capital, and have defined limits for cash flow and liquidity against which you can monitor progress. If these limits are breached, action can be taken in advance to get the business back on track. This is critical to managing risk.